

REMARKS

The present amendment is in response to the Office Action dated October 10, 2007. In a telephone interview with the Examiner which took place on November 27, the new prior art rejections based on US Patent No. 6,234,941 of Chu were discussed, along with differences between the rejected independent claims and Chu. The Examiner recommended filing of a formal amendment explaining these differences. The Examiner is thanked for his time in this interview. The comments below include an explanation of the differences between the independent claims and the Chu reference, as briefly summarized in the telephone interview with the Examiner.

In the current Office Action, the Examiner has allowed claims 34 to 41 and rejected claims 1, 5, 8, 9, 11 to 13, 15, 16, 29 and 32. Claims 8, 18 to 23 and 25 to 28 are indicated to be allowable if rewritten independently. The status of claim 8 was discussed in the telephone interview and the Examiner indicated that it should be treated as rejected, not allowable. The status of claims 2 to 4 and 6 is also not specifically mentioned in the Office Action, and the differences between these claims and Chu are also discussed below.

Accompanying this amendment is a supplemental Information Disclosure Statement bringing to the Examiner's attention some prior art cited in related applications directed to exercise arm assemblies, as well as an Office Action issued in one of the related applications which is a divisional of the same application (Serial No. 10/417,431) of which this application is a Continuation-In-Part. It is believed that all of the claims of this application are distinguished over the new references cited in the accompanying Information Disclosure Statement.

In the foregoing amendment, claims 1, 13, 18, and 25 are amended with the other claims unchanged. Following this amendment, claims 1 to 29, 32, and 34 to 41 are pending with claims 1, 2, 11, 13, 15, 18, 25, 34, and 39 being the independent claims. Reconsideration and allowance of pending claims 1 to 29 and 32 in addition to currently allowed claims 34 to 41 is respectfully requested in view of the amendments and the following remarks.

Allowable Subject Matter

Applicant thanks the Examiner for the allowance of claims 34 to 41, and the indicated allowability of claims 18 to 23 and 25 to 28. In the foregoing amendment, claims 18 and 25 have both been rewritten as independent claims including the subject matter of the base claim and any

intervening claim from which they previously depended. It is therefore submitted that claims 18 and 25 are both now in order for allowance, along with claims 19 to 22 which depend from claim 18. Claims 23 and 26 to 28 have not been amended, but are believed to be allowable in view of their dependence from independent claim 13, which is distinguished from the new prior art reference of Chu for the reasons stated below.

Withdrawn Claims

In the Office Action, the Examiner indicates that dependent claims 7, 10, 14, 17 and 24 are withdrawn from consideration as drawn to a nonelected species. It is submitted that each of these claims depends from an independent claim which is allowable over Chu for the reasons stated below, and consideration of these claims is therefore respectfully requested.

35 USC 102(e) – Chu

The Examiner has rejected claims 1, 5, 8, 9, 11 to 13, 15, 16, 29 and 32 as anticipated by U.S. Patent No. 6,234,941 of Chu. This rejection is hereby respectfully traversed, and it is submitted that independent claims 1, 11, 13, and 15 are all distinguished from Chu for the reasons stated below, along with claims 5, 8, 9, and 12 which depend from claim 1, claim 16 which depends from claim 15, and claims 29 and 32 which depend from claim 13. It is submitted that independent claim 2 is also fully distinguished from Chu, along with claim 3 which depends from claim 2.

For a reference to anticipate a claim, the reference must include every element of the claim. Chu lacks several elements of each of the rejected independent claims. Referring first to claim 1, Chu does have an exercise arm assembly with three non-parallel pivot axes, but every pivot axis is perpendicular to the other two, and there is no pivot axis that is non-perpendicular to the other two pivot axes. Chu's apparatus has a main arm 10 pivoted to the frame for rotation about pivot axis 14 (see Figure 1), a knuckle 30 which the Examiner defines as the "swing arm" which is pivoted to the main arm at pivot bracket or knuckle socket 12 which defines a second pivot axis perpendicular to the axis 14, as clearly seen in Figures 1 and 2, and a handle 42 which is pivoted to the knuckle 30 via a pivot pin mounted in bracket or knuckle socket 32, defining a third pivot axis which is perpendicular to axis 14 as well as the pivot axis defined by bracket 12, as clearly seen in Figures 1 and 2. As stated in column 2, lines 48 to 51 of Chu: "On each arm a knuckle is hinged between two *orthogonal* sockets so as to enable positioning of the arms in appropriate positions for the two exercises." (emphasis added). Thus, the swing arm and handle pivot axes are orthogonal. In column

3, lines 28 to 31, the arm 10 is stated to be engaged with fixed frame structure 20 at a rocker axis 14 for vertical rotation, so that rocker axis 14 must be a horizontal axis, while the knuckle sockets 12 define a horizontal rotational motion of the knuckles 30 and must therefore define vertical pivot axes perpendicular to rocker pivot axis 14. Since knuckle sockets 32 are stated to be orthogonal or perpendicular to knuckle sockets 12, both the drawings and specification clearly describe three perpendicular pivot axes and do not suggest arranging any pivot axis to be non-perpendicular to the other two pivot axis.

Additionally, Chu's apparatus does not allow free pivoting of the "swing arm" (or knuckle 30) about the second pivot axis, i.e. the pivot axis defined by knuckle socket or bracket 12. Instead, each knuckle 30 is connected to a resistance band 50 which resists rotation of the knuckle about the respective pivot axis, as illustrated in Figures 5 to 7 and described in column 3, lines 54 to 59. Since the knuckles, defined by the Examiner as swing arms, in Chu rotate about the knuckle sockets against the resisting means, there is no free pivoting of the swing arm about a second pivot axis in Chu, and this element of claim 1 is also lacking from Chu. In contrast with Chu, the exercise arm assembly described in the present application has a main arm which is linked to an exercise resistance so rotation of this arm is resisted (see Figure 7, for example), but the swing arms rotate freely within the predetermined angular range determined by the end stops.

It is therefore submitted that amended claim 1 is not anticipated by Chu, and reconsideration and reversal of the rejection of claim 1 on this basis is respectfully requested. Claims 5, 8, and 9 which depend from claim 1 are distinguished from Chu for the same reasons as claim 1, as is claim 6 which depends from claim 5. Additionally, referring to claim 8, Chu does not describe a range limiting device for limiting rotation of knuckle 30 which comprises a slot on the pivot sleeve and a pin mounted on bracket 12 which engages the slot. Referring to claim 9, the grips 44 are not rotatably mounted on the handle arm 42, but appear to be sleeves which engage directly over the end of the arm 42 and are fixed to the arm. Chu has no pivot bracket with a grip rotatably mounted on the bracket for rotation about a fourth pivot axis perpendicular to the third pivot axis. Instead, grip 44 is rigidly secured to a bent end of handle or handle arm 42 which rotates about a pivot axis (the third pivot axis) defined by pivot bracket 32. Claim 9 is additionally distinguished from Chu for this reason. Claim 12 depends from claim 9 and includes other elements lacking from Chu. There is no pivot sleeve secured to knuckle 30 in Chu which is oriented at a non-perpendicular angle to the

swing arm or knuckle 30. The sleeve rotatably mounted in bracket 12 which is secured to the inner end of knuckle 30 extends perpendicular to the knuckle, as clearly seen in Figures 1 and 2.

Since claim 1 is believed to be allowable over Chu, consideration and allowance of withdrawn claims 7 and 10 which depend from claim 1 is respectfully requested.

Chu also lacks several elements of independent claim 11. First, Chu has three pivot axes with each pivot axis perpendicular to the other two, and does not have any pivot axis which is non-perpendicular to the other two pivot axes, as has been noted above in connection with claim 1. Second, the handle 40 in Chu has no bracket having a pivot shaft rotatably secured to the swing arm for rotation about the third pivot axis, nor any grip which is rotatably mounted on such a bracket for rotation about a fourth pivot axis perpendicular to the third pivot axis. Instead, Chu has a handle arm 42 secured at one end to a sleeve rotatably mounted on bracket 32 which is rigidly secured to knuckle or swing arm 30, and a grip 44 which is non-rotatably mounted over the free end of handle arm 42. This is completely different from the arrangement defined in claim 11.

Since Chu completely lacks several elements of claim 11, as noted above, it is submitted that this claim is not anticipated by Chu, and reconsideration and reversal of the rejection of claim 11 on this basis is respectfully requested.

Amended independent claim 13 also includes elements which are completely lacking from Chu. Like claim 1, claim 13 defines at least one pivot axis which is non-perpendicular to the other two pivot axes. This element is completely lacking from Chu where all three pivot axes are perpendicular. Further, the swing arm or knuckle 30 in Chu is not freely rotatable about the third pivot axis within a predetermined angular range. Instead, the knuckle 30 is resisted by resistance means or elastic strap 50 as it rotates about the pivot axis at bracket or socket 12.

Since Chu lacks these elements of claim 13, it is submitted that claim 13 is not anticipated by Chu, and reconsideration and reversal of the rejection of this claim is respectfully requested.

Rejected claims 29 and 32 depend from claim 13 and are distinguished from Chu for the same reasons as claim 13. Additionally, claim 29 defines an arrangement in which each pivot axis is non-perpendicular to the other two, which is clearly not the case in Chu where each pivot axis is perpendicular to the other two.

Claim 4, which is not mentioned by the Examiner, also depends from claim 13 and is distinguished from Chu for the same reasons as this claim.

Since claim 13 is believed to be allowable over Chu, consideration and allowance of withdrawn claims 14, 17 and 24 which depend from claim 13 is respectfully requested.

Independent claim 15 also defines elements which are lacking from Chu. Like claims 1, 11, and 13, claim 15 also defines one pivot axis which is non-perpendicular to the other two. This element is lacking from Chu, as explained above in connection with claim 1, where each pivot axis is perpendicular to the other two pivot axes. Chu also does not have main arms and swing arms which each have at least one bend separating the arm into two relatively angled portions. Although it could be said that main arm 10 effectively has a bend (where arms 10 meet the central shaft to which the brackets 12 are welded), there is clearly absolutely no bend in the straight knuckle 30.

Since all of these elements are completely lacking from Chu, it is submitted that claim 15 is not anticipated by this reference, and reconsideration and reversal of the rejection of this claim is respectfully requested. Claim 16 depends from claim 15 and is distinguished from Chu for the same reasons, and also since claim 16 defines other elements lacking from Chu. The swing arm in Chu has no inboard side facing a central axis of an exercise apparatus with a handle pivoted on the inboard side of the arm. Instead, the knuckles 30 extend transverse to the central axis of the assembly in Figure 1 and face in a direction parallel to this axis, with the handles 40 pivoted to the outer ends of the knuckles.

Although independent claim 2 is not specifically mentioned by the Examiner in the Office Action, such that the status of this claim is not clear, it is submitted that this claim is also allowable over Chu. Like the other independent claims, claim 2 defines at least one pivot axis which is non-perpendicular to the other two pivot axes, which is not the case with Chu where every pivot axis is perpendicular to the other two pivot axes. Additionally, the swing arm in Chu has no angled bend, as has been discussed above in connection with claim 15. It is therefore submitted that claim 2 is not anticipated by Chu. Claim 3 depends from claim 2 and is distinguished from Chu for the same reasons. Additionally, the swing arm in Chu does not have any third, inward bend adjacent the handle 30, but instead is a short, completely straight knuckle with pivot connections or knuckle sockets at each end.

It is submitted that claims 1, 5, 8, 9, 11 to 13, 15, 16, 29 and 32 are all distinguished over Chu for the foregoing reasons, as are claims 2 to 4, 6, 7, 10, 14, 17, and 24, and allowance of all of these claims is respectfully requested.

CONCLUSION

It is believed that claims 1 to 29, and 32 are now in condition in all respects for allowance in addition to allowed claims 34 to 41, for the reasons stated above. Early notice to this effect is earnestly solicited. If the Examiner has any questions or comments regarding the above Amendments and Remarks or believes that a telephone conversation may be useful in advancing prosecution, the Examiner is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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